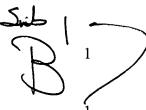
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<u>Claims</u>

1	 A substantially pure preparation of AGE-1 polypeptide or a fragment
2	thereof, the polypeptide having at least 50% amino acid sequence identity to the
3	polypeptide of Figure 6 (SEQ ID NO: 1).

- 1 2. The polypeptide of claim 1, wherein said AGE-1 polypeptide includes 2 identical amino acids in equivalent positions to 50% of the following amino acids of
- 3 Figure 6 (SEQ ID NO: 1): Gly-32, Leu-73, His-78, Phe-81, Glu-109, Phe-114, Leu-123,
- 4 Leu-125, Phe-129, Lys-181, Ser-208, Lys-211, Arg-321, Leu-325, Leu-351, Ser-355,
- 5 Met-373, Leu-381, Leu-393, Thr-432, Tyr-451, Glu-475, Pro-507, Ile-514, Gly-518, Glu-
- 6 530, Val-538, Leu-582, Tyr-606, Pro-643, Phe-665, Leu-744, Leu-745, Arg-762, Leu-
- 7 789, Arg-794, Ala-827, Arg-829, Trp-835, Ser-842, Asn-905, Gly-917, Asp-975, Ile-990,
- 8 Asp-1006, His-1020, Lys-1104, Thr-1105, Gly-1130, Phe-1140, and Lys-1144.
- 1 3. The polypeptide of claim 1, wherein said AGE-1 polypeptide includes an alanine at equivalent amino acid 827.
- 1 4. The polypeptide of claim 1, wherein said AGE-1 polypeptide is derived 2 from an animal.
- The polypeptide of claim 4, wherein said animal is C. elegans.
- 1 6. The polypeptide of claim 4, wherein said animal is a mammal.
 - 7. The polypeptide of claim 6, wherein said mammal is a human.



- Apurified DNA which encodes an AGE-1 polypeptide of claim 1. 8.
- A purified DNA comprising an AGE-1 nucleic acid sequence which is at
- least 30% identical to the nucleic acid sequence of Figure 4 (SEQ ID NO: 2). 2

- A vector comprising the purified AGE-1 DNA of claim 8 or 9.
- A cell comprising the purified AGE-1 DNA of claim 8 or 9. 11.
- A method of producing a recombinant AGE-1 polypeptide, said method 1 12. 2 comprising the steps of:
 - (a) providing a cell transformed with the DNA of claim 8 or 9 encoding an
- AGE-1 polypeptide positioned for expression in the cell; 4
 - (b) culturing the transformed cell under conditions for expressing the DNA;
- 6 and

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- solating the recombinant AGE-1 polypeptide. 7
- A recombinant AGE-1 polypeptide produced according to the method 1 13. 2 of claim 12.
- A substantially pure antibody that specifically recognizes and binds to 1 2 an AGE-1 polypeptide.

A method of identifying an AGE-1 modulatory compound that is capable of decreasing the expression of an AGE-1 gene, said method comprising the steps of:

(a) providing a cell expressing the AGE-1 DNA of claim 8 or 9; and

	1	(b) contacting said cell with a candidate compound, a decrease in AGE-1
	2	expression following contact with said candidate compound identifying a modulatory
	3	compound.
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Sup	1	16. Amethod of identifying an AGE-1 modulatory compound that is
- H	\prec_2	capable of decreasing AGE-1 activity, said method comprising the steps of:
	3	(a) providing a cell expressing an AGE-1 polypeptide; and
	4	(b) contacting the cell with a candidate compound, a decrease in AGE-1
	5	activity following contact with the candidate compound identifying a modulatory
	6	compound.
C	1	17. The method of main 15 on 16, wherein said AGE-1 gene encodes or
<u> </u>	2	AGE-1 polypeptide includes an amino acid sequence that is at least 50% identical to the
	3	amino acid sequence shown in Fig. 6 (SEQ ID NO: 1).
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D3W	\sum_{1}	18. The method of claim 15 or 16, wherein said AGE-1 gene or AGE-1
D	2	polypeptide is from an animal
Ñ.		1884
Vaacys	150	The method of claim 15 or 16, wherein said method is carried out in a
**************************************	2	nematode or other animal
Sub-	1	20. The method of claim 15 or 16, wherein said method involves assaying
\mathcal{D}_{\star}	2	AGE-1 activity in vitro.
	1	21. An AGE-1 modulatory compound identified by the method of claim 15.
	1	22. An AGE-1 modulatory compound identified by the method of claim 16.
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1	23.	A method for increasing longevity in a mammal, said method		
2	comprising adm	ninistering a therapeutically effective amount of the compound of claim 21		
3	or 22 to a mammal.			
1	24.	A method of determining the longevity of an animal, comprising		
2	measuring AGE	E-1 gene expression or AGE-1 activity in a sample from the animal, with a		
3	decrease in AG	E-1 expression or activity relative to a wild-type sample being an		
4	indication that the animal has increased longevity.			
1	25.	The method of claim 24, wherein said animal is a mammal		
1	26.	The method of claim 24, wherein said mammal is a human.		
1	27.	The method of claim 24, wherein AGE-1 gene expression is measured		
2	by assaying the	amount of AGE-1 polypeptide in said sample.		
1	28.	The method of claim 24, wherein said method involves assaying kinase		
2	activity.			
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